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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
APPLICATION FOR UNITED STATES LETTERS PATENT

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TITLE:	THORAX DRAINAGE SYSTEM
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THORAX DRAINAGE SYSTEM

RELATED APPLICATIONS

This application is a continuation-in-part of U.S. Serial No. _____, filed December 12, 2003.

FIELD OF THE INVENTION

The present invention related to a thorax drainage system.

BACKGROUND OF THE INVENTION

The systems known today, which all operate with vacuum aspiration, are so constructed that most if not all of the system components (except the vacuum pump) are disposed of after being used once. A further disadvantage is that the drainage system is mains-operated, so that the patient is in practice confined to bed while the system is operating.

The thorax drainage system is of vital importance for the patient because, following surgical interventions in the thorax region, a vacuum has to be established and maintained in the thorax to ensure that the lungs can expand to the normal "operating size".

SUMMARY OF THE INVENTION

The object of the present invention is to make available a thorax drainage system which on the one hand satisfies the medical requirements and on the other hand offers the patient improved mobility (in order, among other things, to reduce the period spent confined to bed). At the same time, the system must be able to be used several times on the same patient (cost savings through reuse, also of the secretion-collecting container).

According to the invention, this object is achieved, in the present thorax drainage system, by the features set out in the appended claims.

An illustrative embodiment of the subject of the invention is explained in rather more detail below with reference to the drawing.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 shows a purely diagrammatic representation of the construction of the system according to the invention.

DETAILED DESCRIPTION OF EMBODIMENTS OF THE INVENTION

The container forming the secretion-collecting chamber 1 is closed tight with a cover 1′. The drainage line 3 leading to the patient, and designed as a disposable line, leads through the cover 1′ into the chamber 1. A second container 2 forms an underwater seal and is connected to the container 1 via the connecting line 4. The underwater seal filled partially with water forms a kind of nonreturn valve in which air or fluid is led off but cannot flow back to the patient.

The container 2, likewise closed tight with the cover 2′, is connected via a line 6 to a vacuum pump 5 which for its part is operated by a battery 7 (for stationary use, the system can alternately be plugged into the mains). A control unit 8 is provided for operating the system.

To improve the mobility of a patient, all the system components are arranged on a mobile trolley so that, by virtue of the battery operating, complete independence is ensured. The trolley can of course also receive infusion containers.

The drainage line 3 (disposable article), and the container 1 (secretion-collecting chamber) which can be cleaned, are to be replaced from time to time.

The drainage system can not only be used for thorax drainage but for drainage of fluids from all kind of human body cavities, such as for gastric drainage. In this case however, the underwater seal is usually not necessary.